

AMENDMENTS TO THE SPECIFICATION

In accordance with 37 C.F.R. § 1.121(b)(1)(iii), please amend page 11, beginning at line 18 and ending at line 25 of the Application as follows:

In one embodiment, recombinant expression vector including intracellular biomolecule transduction peptide of pSim-2- β -gal comprises DNAs encoding a peptide corresponding to amino acid sequence of SEQ. ID No.:1, 6 (six) successive histidine codons to purify the desired proteins expressed in host cells, ~~Asp-Asp-Asp-Asp-Lys sequence~~ SEQ. ID NO. 19 to be cleaved with enterokinase or ~~Glu-Asn-Leu-Tyr-Phe-Gln-Gly sequence~~ SEQ. ID NO. 20 to be cleaved with Tev and DNAs encoding a marker of β -galactosidase for the detection of the desired protein in cells.

In accordance with 37 C.F.R. § 1.121(b)(1)(iii), please amend pages 18-19, beginning at line 12 and ending at line 25 of page 18, and beginning at line 1 and ending at line 7 of page 19, of the Application as follows:

Nucleic acid sequence encoding peptide corresponding to amino acids from 558th of ~~Alanin-~~ Alanine to 566th of ~~Arginin-~~ Arginine from N-terminus human transcription factor of Sim-2 (~~GeneBank~~ GenBank Code: U80456) was combined with nucleic acid sequence encoding reporter protein of β -galactosidase. In order to do this, firstly, a primer of SEQ.ID No.:2 containing nucleic acid sequence encoding peptide corresponding to amino acids from 558th of ~~Alanin-~~ Alanine to 566th of ~~Arginin-~~ Arginine from N-terminus of Sim-2 and BamHI site for cloning, and a primer of SEQ.ID No.:3 containing nucleic acid sequence of 3' terminus of β -galactosidase and restriction enzyme of BglII site for cloning were derived. Then, PCR was carried out using pIND/lacZ vector (Invitrogen corp.), as a template, with pfu turbo DNA polymerase (Stratagene, cat.# 600252-51). After digesting the PCR products with restriction enzymes of BamHI and BglII, the results were purified with PCR purification kit (Quiaquick) (QIAGEN, cat.# 28104). The purified products were cloned to pTrcHis B (Invitrogen, Cat.No. V360-20B), which was purified with gel extraction, at BglII recognition site, thereby

recombinant expression vector was generated and named pSim-2- β -gal. Fig.1A illustrates the construct of the expression vector of pSim-2- β -gal. The expression vector of p Sim-2- β -gal was treated with Xba I and HindIII and then, it was subject to electrophoresis on 1% agarose gel followed by staining with ethydium bromide (see Fig.1B). In Fig.1B, the first column represents the present p Sim-2- β -gal, and the second column represents standard sized DNA fragments.